DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-016362
Date Inspected: 09-Aug-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Qiu Wen

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower & OBG Components

Summary of Items Observed:

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

This QA Inspector observed the following work in progress
Shielded Metal Arc Welding (SMAW):
Weld joint # 28B located on North tower Lift-5 Grillage Assembly NSD1 – TL5 – 3B/F. Welder is identified as 067707. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Weld joint # 25A located on South tower Lift-5 Grillage Assembly SSD1 – TL5 – 1F/F. Welder is identified as 048786. ZPMC Quality Control (QC) Inspector is identified as Yuan Hui Gang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Weld joint # 11 located on North tower Lift-5 Grillage Assembly NSD1 – TL5 – 3B/F. Welder is identified as 066361. ZPMC Quality Control (QC) Inspector is identified as Yu Zhi Lai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U4c.

Weld joint # 6A located on South tower Lift-5 Grillage Assembly SSD1 – TL5 – 1B/F. Welder is identified as 044515. ZPMC Quality Control (QC) Inspector is identified as Yuan Hui Gang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC – U5b.

Weld build-up by shielded Metal Arc Welding (SMAW):
Weld build up being performed using backing bar located on Lift-4 Facade ND1 – SFSA4 – 326 as per the Weld Repair report # T-WR3477. Welder is identified as 057180. ZPMC Quality Control (QC) Inspector is identified as Liu Fang. The welding variables recorded by QC appeared to comply with the WPS – 345 – FCAW – 2G (2F) – Repair – 1.

BAY#11

This QA Inspector observed the following work in progress
Shielded Metal Arc Welding (SMAW):
Weld joint # 23 located on East tower Lift-5 Grillage Assembly ESD1 – TL5 – 2B/F. Welder is identified as 040611. ZPMC Quality Control (QC) Inspector is identified as Ma Qian Li. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC –U4c.

Weld joint # 7B located on East tower Lift-5 Grillage Assembly ESD1 – TL5 – 2B/F. Welder is identified as 040679. ZPMC Quality Control (QC) Inspector is identified as Ma Qian Li. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – TC –U5b.

ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11
This QA Inspector observed the following work in progress
Fluxcored Arc Welding (FCAW):
Weld joint # 69 located on Bike Path panel Assembly BK004A6– 019. Welder is identified as 205649. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2131.

Weld joint # 13 located on Bike Path panel Assembly BK004A3– 020. Welder is identified as 053316. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

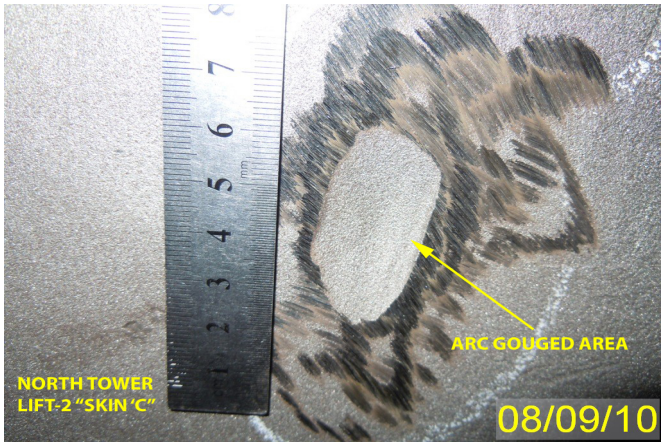
Witness of Ultrasonic Testing (UT)
This QA inspector Witnessed 100% UT performed by ZPMC Quality Control personnel. During the process ZPMC UT technician found One (1) class ‘A’ non conforming indication as per AWSD1.5 Table 6.3. The member is identified as OBG Component. The component and weld designation identified as follows:
BIKEPATH COMPONENT
BK004A – 021 – 009

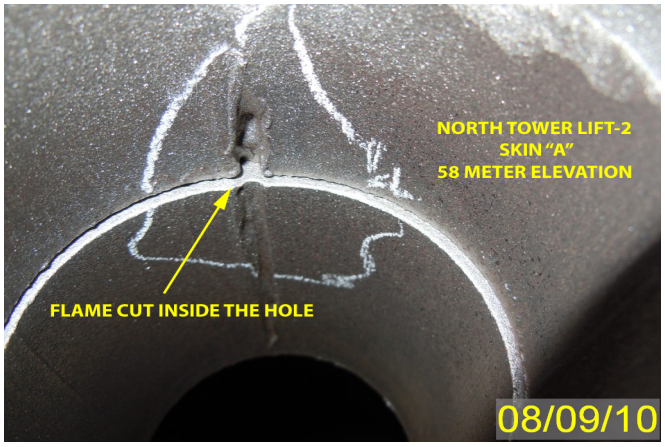
BLAST SHOP# 2
EXTERNAL PRE-BLAST INSPECTION OF NORTH TOWER LIFT-2 FROM 50.5 M TO 83 M ELEVATION
During the external pre-blast visual inspection of north tower lift-2, this Quality Assurance Inspector (QA) discovered the defects required welding and Magnetic particle testing on base material at the following locations:

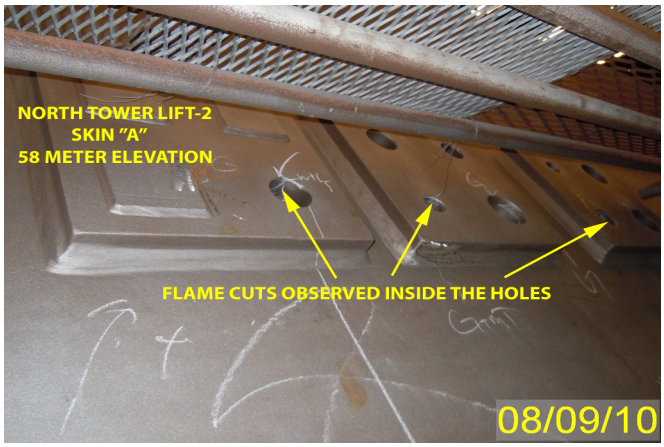
- Skin ‘A’ – Notch – 5 mm from top of the tower.
- Skin ‘A’ – Flame cut – Inside the holes at 58 Meter elevation.
- Skin ‘C’ – arc gouge – at 68 Meter elevation.
- Skin ‘D’ – Notch – 200 mm from top of the tower.
- Skin ‘E’ – arc gouge – 3880 mm from Bottom of the tower.

For further more information see attached pictures

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.







Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer